We claim:

1. An apparatus for analyzing a sample comprising a probe having a plurality of domains disposed thereon, wherein the domains form an array.

2. The apparatus of claim 1, wherein the array is a nanoarray.

3. The apparatus of claim 1, wherein the domains comprise one or more biomolecules selected from the group consisting of drugs, drug candidates, chemical groups, lipids, DNA, RNA, proteins, peptide species, carbohydrates, and any combination thereof.

4. The apparatus of claim 1, further comprising nanosensors operably connected to one or more of the domains.

5. The apparatus of claim 1, wherein the probe comprises a microcantilever.

6. The apparatus of claim 1, wherein the probe is a dual element probe.

7. The apparatus of claim 1, wherein the probe is a multielement probe.

8. The apparatus of claim 1, wherein the sample comprises a volume of about 50 femtoliters to about 10 microliters.

9. The apparatus of claim 1, further comprising at least one microdisrupter disposed on the probe.

10. The apparatus of claim 9, wherein at least one microdisrupter comprises a tip or pointed member.

11. The apparatus of claim 1, wherein the probe further comprises at least one hydrophobic region.

12. The apparatus of claim 1, further comprising a molecular detection device operably connected to the probe.

13. The apparatus of claim 12, wherein the molecular detection device is a scanning tunneling microscope, atomic force microscope, mass spectrometer, fluorescence microscope, flow cytometer, Raman spectrometer, Infra-red spectrometer, UV spectrometer, electronic system, electrochemical system, optical system, magnetic and electromagnetic system, or mass measuring system.

14. A method of detecting a molecular interaction event comprising:
contacting a sample with a probe having a plurality of domains disposed in an array;
providing an incubation period;
washing unbound molecules from the domains; and
detecting the molecular interaction event.

15. The method of claim 14 wherein the sample comprises at least one cell.

16. The method of claim 14 wherein the sample comprises at least one cell lysate.

17. A method of detecting one or more molecules in a sample comprising:
contacting the sample a probe having a plurality of domains disposed thereon, wherein the domains form an array, and wherein the domains are operably connected to one or more nanosensors; and
detecting binding of one or more molecules to one or more of the domains.

18. A method of analyzing one or more analytes in a cell comprising:
disrupting a cell with a microdisrupter disposed on a probe, wherein the probe has a plurality of domains disposed thereon, and wherein the domains form a nanoarray;

passing the nanoarray through the membrane of the cell such that the nanoarray contacts intracellular space; and
detecting the binding of one or more analytes to the nanoarray.

19. The method of claim 18, further comprising passing the probe through the nuclear membrane such that the nanoarray contacts intranuclear space.

20. The method of claim 18, further comprising inserting the probe into a sub-cellular species.

21. The method of claim 20 wherein the sub-cellular species is selected from the group consisting of a golgi complex, a mitochondria, a lysosome, an endoplasmic reticulum, a lipid raft and a cytoskeletal system.

22. A method of retrieving at least one analyte from a sample comprising:
contacting the sample with a probe having a plurality of domains disposed thereon, wherein the domains form an array; and
retrieving at least one analyte from the molecular domains.

23. A method of delivering at least one substance to a cell comprising:
reversibly attaching at least one substance to a probe having a plurality of domains disposed thereon, wherein the domains form an array;
passing the probe through the membrane of the cell into the intracellular space; and
releasing at least one substance into the intracellular space.

24. The method of claim 23 wherein reversibly attaching at least one substance to a probe comprises contacting the substance to the domains such that a binding event occurs.

25. The method of claim 23 wherein at least one substance is DNA, RNA, a peptide species, a chemical, a drug or a reactive species.

26. The method of claim 23 wherein reversibly attaching comprises tethering at least one substance to at least one domain with a protease substrate, a photolyzable tether, a chemically reactive tether, an ionically reactive tether or a thermally sensitive tether.

27. A method of detecting an *in situ* molecular interaction event comprising:
contacting a sample with a probe having a plurality of domains disposed in an array;
providing an incubation period; and
detecting the molecular interaction event.